BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

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Order Instituting Rulemaking to Implement the Commission's Procurement Incentive Framework and to Examine the Integration of Greenhouse Gas Emissions Standards into Procurement Policies.	R. 06-04-009

PREHEARING CONFERENCE STATEMENT OF EL PASO NATURAL GAS COMPANY AND MOJAVE PIPELINE COMPANY ON ISSUES RELATING TO GHG EMISSIONS IN THE NATURAL GAS SECTOR

In accordance with the Ruling of the Assigned Commissioner and Administrative Law Judge and Notice of Prehearing Conference, dated July 12, 2007 (Ruling), El Paso Natural Gas Company (EPNG) and Mojave Pipeline Company (Mojave) hereby submit their joint comments on the Phase 2 issues relating to greenhouse gas (GHG) emissions in the natural gas sector. Such issues are specifically identified in Attachment A to the Ruling, titled "Preliminary Staff Recommendations for Treatment of Natural Gas Sector Greenhouse Gas Emissions" (Staff's Recommendations).

Introduction and Background

The EPNG and Mojave pipeline systems provide over 30% of the natural gas consumed in California. The two companies are indirect subsidiaries of El Paso Corporation (collectively, "El Paso"), which is organized around two core businesses - pipelines and exploration and production. El Paso's pipeline group operates a nationwide network of nearly 43,000 miles of pipeline, comprising over 20% of the interstate gas pipeline infrastructure in the country. El Paso has operations in over thirty states and on lands of multiple federal agencies and tribes.

El Paso currently helps satisfy, and will continue to meet, California's growing demand for clean-burning natural gas through its extensive network of natural gas pipelines and future natural gas projects. As an industry leader, we share the concerns being expressed by public and governmental stakeholders over the issue of GHGs. El Paso has been actively participating in national and international policy discussions and has instituted internal guiding principles on the

issue of global climate change.[1] Our commitment in this regard carries out our core value of Stewardship as we strive always to be good stewards of the Earth.

El Paso Corporation has been a member of the California Climate Action Registry (CCAR) since 2006. In June 2007, El Paso became the first natural gas transmission company to file an emissions inventory covering all applicable GHGs - including methane, N_2O and CO_2. On July 16th of this year El Paso became the first natural gas company to certify its emissions and earn the status of Climate Action Leader. Indeed, we are also the first CCAR member to report and certify an emissions inventory for 2006.[2] Later this year, El Paso intends to register its 2006 GHG emission estimates under DOE 1605(b) requirements.

El Paso maintains leadership positions at the Interstate Natural Gas Association of America (INGAA) on GHG issues and in the development of the INGAA Greenhouse Gas Emission Estimation Guidelines for Natural Gas Transmission and Storage.

El Paso is part of the Natural Gas Protocol Workgroup facilitated by the CCAR and the World Resources Institute (WRI) with the goal to produce a guidance document and protocol for estimating GHG emissions from Natural Gas Transmission, Storage and Distribution sectors. The protocol and calculation tool(s), which will be developed through a stakeholder workgroup process, will supplement the California Climate Action Registry's General Reporting Protocol[3] and the WRI/World Business Council for Sustainable Development Greenhouse Gas Protocol - A Corporate Reporting and Accounting Standard.[4]

Summary of Comments on Staff's Recommendations

EPNG's and Mojave's detailed comments on the Staff's Recommendations are set forth on Attachment "1" hereto. These comments are also being filed with the California Energy Commission (CEC) in its Docket No. 07-OIIP-01. In summary:

- The Staff's Recommendations focus on efficiency and conservation measures, which are unquestionably important. However, we strongly urge the Commission, in conjunction

[1] El Paso's first internal (2004) GHG inventory was completed in 2005. El Paso's 2005 GHG inventory for the pipeline group successfully underwent a third-party verification process. In addition, El Paso has produced a corporate GHG Inventory Management Plan and a pipeline GHG Inventory Process Technical Manual, and is in the process of developing a GHG Information Management System.

[2] El Paso's 2006 entity-level emissions report is now available to the public at http://www.climateregistry.org/CARROT/public/reports.aspx.

[3] http://www.climateregistry.org/docs/PROTOCOLS/GRP%20V2-March2007_web.pdf.

[4] http://www.ghgprotocol.org/templates/GHG5/layout.asp?type=p&MenuId=ODg4&doOpen=1&ClickMenu=No.

with the California Air Resources Board (CARB) and the CEC, to also encourage pipeline expansion and gas supply from the Rockies into California. For the state is projected to have an imminent need for additional gas supplies in the near term. Due to its clean burning emissions profile and immediate construction and implementation of the natural gas technologies in this sector (including natural gas fired units in the electric sector), we strongly believe that natural gas is the "bridge" to meet AB32's 2020 climate challenge.

- While significant attention has been paid to "leakage" with respect to electricity supplies and GHG emissions, a load-based cap that makes interstate natural gas transmission operators the point of regulation could result in similar effect. Specifically, if California's GHG reduction program places significant additional costs on natural gas delivered by the interstate pipelines, gas suppliers will have the incentive, at the margin, to move the gas to extrinsic demand areas (outside of California) that are not burdened by such costs. Among other things, that will make it less likely that pipeline capacity will be built to move new Rockies supplies to California, exacerbating the state's looming supply tightness.

- We support an economy-wide, cap-and-trade regulatory program that includes the natural gas sector. However such program must be carefully designed to avoid creating disincentives for additional gas supplies to flow to the state and to minimize market distortions.

- There are major legal, regulatory and commercial hurdles that are not considered in Staff's Recommendations with respect to the possibility of assigning the point of regulation to interstate natural gas pipelines that outweigh any perceived administrative efficacy derived from fewer regulated entities.

- Staff has accurately concluded that direct GHG emissions from the natural gas transportation sector are a small fraction of the state's total emissions and that meaningful progress in reducing GHG emissions must focus on end-user combustion. The Staff Recommendations also correctly note that natural gas transmission companies have already deployed substantial technologies to mitigate and reduce fugitive and vented emissions, actions that have been incentivized by the higher natural gas price environment of the past several years.

- Significant technical issues relating to uncertainty weigh against inclusion of emissions from natural gas systems in a cap-and-trade program. We recommend that the Commission consider the recommendation of the Market Advisory Committee of the California Environmental Protection Agency (MAC) to not include fugitive emissions in any cap-and-trade programs due to substantial uncertainty surrounding emission estimates from these categories. We also recommend not including vented emissions in the overall cap-and-trade program.

- Some recommendations of Staff with respect to natural gas systems are inconsistent with the recommendations of the MAC.

- Similar to the MAC's recommendations, we strongly recommend the consideration of *emission offsets* in an eventual cap-and-trade program:
    - However, we recommend incorporation of both case-by-case and performance-based standards emission offsets.
    - We support development of performance-based offset standards and have led industry and stakeholder efforts in this area.
    - The quality of the GHG offsets must be the primary criterion for deciding between performance-based and case-by-case offset standards.
    - The Clean Development Mechanism (CDM) Executive Board has approved AM0023 to quantify GHG offsets from natural gas facilities. El Paso has developed a policy-neutral technical protocol that incorporates the technical attributes of AM0023.[5] Inclusion of El Paso's case-by-case offset protocol for natural gas transmission and distribution facilities will ensure the availability of high quality GHG offsets to California's cap-and-trade program.
    - Experience gained through case-by-case offset development will form the cornerstone for future performance-based offset standards.

- We strongly support the inclusion and consideration of *early action credits* in a cap-and-trade program:
    - We recommend issuance of allowances for early action credits for the natural gas transmission and distribution sectors.
    - Not providing allowances for early actions will create inconsistencies with programs such as the Regional Greenhouse Gas Initiative (RGGI) Model rule.

Conclusion

EPNG and Mojave support the Commission's efforts to develop recommendations to present to the CARB as it implements Assembly Bill 32. As certified Climate Action Leaders, we want to work with California in its efforts to reduce GHG emissions while continuing to ensure that adequate supplies of competitively-priced natural gas will flow to the state.

[5] That document is Attachment 2.

Respectfully submitted,

/s/Stephen G. Koerner

By _____

Craig V. Richardson, Esq.
Vice President and General Counsel
Stephen G. Koerner, Esq.
Senior Counsel
El Paso Corporation – Western Pipelines
2 North Nevada Ave.
Colorado Springs, CO 80903
(719) 520-4443

Counsel for El Paso Natural Gas Company and Mojave Pipeline Company

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ATTACHMENT “1”

COMMENTS ON THE STAFF’S RECOMMENDATIONS

I. Overview of California's Natural Gas Supply Situation

The state of California uses approximately 6 Bcf/d of natural gas, which is consumed to heat homes, generate electricity for residential use as well as for many industrial and commercial businesses. Approximately 8.5 Bcf/d of interstate pipeline capacity is connected to the state. Liquefied natural gas (LNG) supplies are supposed to begin arriving soon in the Baja of Mexico. Those supplies could eventually provide 1.1 Bcf/d of gas to California. And there are mandates requiring at least 20% of the state's energy needs be supplied by renewable sources by 2010. This seems to suggest a portfolio energy system in balance, with many options and alternatives. However, California confronts a number of dynamic drivers that are constantly evolving and could place the state at episodic and periodic risk. These drivers are: natural gas supply; LNG; natural gas electric generation; east of California (EOC) demand; pipeline capacity and efficiency standards. The following discussion is intended to outline how these drivers function and how they can affect the state.

As the Staff's Recommendations note, approximately 85% of the state's gas supply is transported via interstate pipelines from various supply basins, including Alberta in Canada, Rocky Mountains (numerous basins), San Juan and Permian. Gas produced in other basins can also be delivered to California because of the connectivity of many interstate pipelines, but the above basins currently and foreseeably provide the majority of gas consumed in California.

Canada is experiencing dramatic growth in local natural gas demand (primarily due to requirements for tar sands production and electric generation) and at the same time a decline in supply. The country has an excess of pipeline export capacity, which allows the producers to ship their gas to the highest-priced market. For example, beginning approximately three years ago, throughput on the Gas Transmission Northwest pipeline to California during certain winter days decreased to only 300 MMcf/d versus a capacity of 2 Bcf/d (equating to 15% load factor). The reason for this decline was due to a very high demand for natural gas in the northeastern part of the United States. (Like any commodity, gas will seek the highest net price.) This phenomenon has reoccurred every year since.

The Rockies is the only major basin still in the growth stages that is connected to California. It

has been projected that even after the Rockies Express Pipeline (REX) is in service, there will be a need for another pipeline expansion by 2010 for almost 1 Bcf/d. This could be good news for the western states if pipeline capacity existed to move this new supply to the west. But that would take an expansion(s) of an existing interstate pipeline(s) or a new pipeline(s). The possibility exists that an expansion of REX or another of the east-bound pipelines will be constructed to move this additional supply to the east. The marketplace will determine what additional capacity is constructed, and where (subject to regulatory approvals).

San Juan and Permian supplies have stabilized at roughly the same volume level over the last four to five years due to increased drilling driven by higher prices. There is existing pipeline capacity from both basins to move gas either east or west. Just as is the case in Canada, price will be the arbiter of gas destination.

LNG was expected to be a new supply source for the state at lower prices that would compete with domestic resources. It now appears that, at least for the next five or six years, the Baja facility will be the only source of LNG supply for California. And a number of recent articles in industry publications have reported that LNG from Indonesia's Tangguh project is likely to be diverted from Costa Azul due to relatively low prices under Sempra's contract for that supply.[6] If that occurs, only about one-quarter of the Baja facility's capacity will be contracted for on a long-term basis. The only LNG supply that will feed the remainder of the capacity of the Baja facility will be occasional spot cargos (unless gas prices in California rise to compete with the Pacific Rim prices.) And since a substantial portion of the output of that facility will almost certainly be consumed in Mexico, at least for the near term, far less regasified LNG is likely to be delivered to California than what was originally projected.

With California having attached interstate natural gas pipeline capacity of 8.5 Bcf/d augmented with storage, it would appear that there would not be a gas supply problem since the infrastructure seems more than adequate. Appearances, however, can be deceiving. The pipeline capacity may be attached to the state, but because of EOC demand growth the supply might not make it to the state because it can be

[6] *See, e.g.,* "CPC Interested in Diverted Tengguh Cargos," *LNG Daily*, July 24, 2007; and "Tengguh Proves Diverting for Sempra," *World Gas Intelligence*, June 20, 2007.

diverted upstream. Due to the dramatic increase in gas demand over approximately the last five years due to natural gas-powered electric generation growth, much of the natural gas that used to reach California via the interstate pipelines is now delivered to points east of California (principally, Nevada and Arizona.) Since much of this new gas-fired electricity is being transmitted to California there is an energy tradeoff. Nonetheless, gas supplies are increasingly not making their way to California. As California's gas transportation contracts are reduced and/or not renewed, producers and interstate pipelines look for alternate destinations. For example, Transwestern Pipeline Company's contracts with the California utilities have been reduced in recent years. Consequently, it has negotiated contracts for service into Phoenix and undertaken an expansion that will divert 500 MMcf/d of supply away from California. That project involves San Juan natural gas, which has consistently been priced attractively relative to supplies from other basins. That diversion may be good for Arizona, but will be costly for California. Regardless, it is instructive on the dynamic qualities of natural gas supplies and transportation.

The only way to remedy this situation is to for California to be connected to a portfolio of supply sources, inasmuch as LNG supplies will not be reliably available, at least in the short term and conservation and renewable sources have significant limitations.[7]

In sum, California is at a critical crossroads in planning its long-term energy future. As part of the AB32 GHG regulatory process, careful, resourceful and realistic planning will be required to meet California's energy needs. El Paso respectfully submits that the best approach is to use a risk-mitigating mix of available fuel sources, that include fossil fuels like natural gas and renewable energy sources as a hedge against an uncertain future and the uncontrollable dynamics of a fast-moving marketplace.

Indisputably, natural gas is the cleanest burning fossil fuel, and natural gas-fired power generation plants offer the greatest flexibility in providing reliable electricity. While there have been several studies reviewing the availability of various technologies available in a carbon-constrained environment, a study conducted by the Pew Center on Global Climate Change and Carnegie Mellon

[7] California has established renewable standards that require renewable sources to supply 20% of the state's energy needs by 2010. The problem for the utilities is that they have to be prepared to perform 24 hours a day and during every hour. Renewable sources (e.g., wind) do not perform every hour and many times during the peak hours they cannot be relied upon. As such, the energy infrastructure must include a "backstop" to insure that the lights stay on and the air conditioners run.

University emphasizes the importance of natural gas and recognizes that natural gas fired units are readily available "in volume" to meet the challenges of a carbon constrained regulatory environment.[8] Natural gas-fired power plants remain the best solution to providing competitive and environmentally-responsible electricity to meet our Nation's growing near-term needs.

The case for natural gas is strong. It is clean. It is cost-competitive. It is relatively abundant. The advantages of gas include:

- Natural gas is a clean-burning fuel: According to several studies cited by the Pew Center on Global Climate Change, natural gas-fired power plants per GWh emit 95 percent and 83 percent fewer metric tons of SO_x and NO_x, respectively, than the average coal plant. These plants also emit less than one-half the CO^2 per GWh than the average coal plant. Natural gas combined cycle (NGCC) power plants also enjoy a lower capital risk, full load energy efficiency advantage, and a lower emissions profile (or penalty), making them easier to permit.

- The cost of natural gas is highly competitive. El Paso has conducted internal modeling and our reference case sets the capital cost of a new NGCC plant at $800/kW versus a $1,600/kW cost for a supercritical pulverized coal unit. This capital cost advantage is sufficient to offset $2.40/MMBtu of the delivered coal price advantage. Under current fuel and allowance prices, the average delivered coal price advantage must exceed $3.34/MMBtu for coal to overcome its capital, efficiency and environmental penalty needed to provide a lower overall cost of electricity.

- Natural gas is abundant globally. During the 10 years following the Energy Policy Act in 1992, more than 80 percent of new power generation was natural gas-fired. Today natural gas generation accounts for 40 percent of the nation's total generation capacity. The increased usage resulted in upward price pressure, but the rising prices produced a side benefit – increased investment in drilling, pipeline capacity and new LNG receiving terminals. The Energy Information Administration expects this supply-side growth to hold natural gas prices in the $5 to $6/MMBtu range through 2030.

Two steps outlined below will: (1) reduce GHG emissions and criteria pollutants; (2) take advantage of billions of dollars of investment in existing gas plants and pipeline infrastructure; and (3) prudently exploit our nation's abundant resources of coal. These two steps to balance reliability, environmental objectives and cost while building energy security are:

1. The "Natural Gas Bridge." Encourage the construction of new gas-fired units that incorporates the environmental, efficiency and capital advantage of natural gas.

2. Fuel-Infrastructure Optimization.
    i. Deploy abundant coal supply with natural gas transmission infrastructure by providing incentives for the development of coal gasification plants with capability of converting coal to synthetic pipeline quality natural gas.
    ii. Incentivize the construction of CO2 pipelines and sequestration alternatives.

[8] The U.S. Electric Power Sector and Climate Change Mitigation, June 2005, Table 5

2020 Focus – the Natural Gas Bridge. While the Staff's Recommendations focus on efficiency and conservation measures, the importance of which should not be diminished, El Paso strongly believes that this Commission and the CEC in conjunction with the CARB should also encourage pipeline expansion and new gas supply from the Rockies into California. Due to its clean-burning emissions profile and immediate construction and implementation of the natural gas technologies in this sector (including natural gas fired units in the electric sector), we strongly believe that natural gas is the "bridge" to meet AB32's 2020 climate challenge.[9] As explained above, there are many projections of a need for an additional pipeline(s) or a pipeline expansion(s) out of the Rockies in the year 2010 on the order of 1 Bcf/d. In order to assure that California's near-term energy needs will be met, gas producers (whose contract commitments will likely determine which pipelines are constructed to serve which demand areas) should be encouraged to seek destinations in California and to serve California, not elsewhere.

Conversely, California must be careful not to inadvertently create disincentives for additional gas to flow into the state. Specifically, if the state's GHG reduction program places significant additional costs on the natural gas delivered by the interstate pipelines, gas suppliers will have in the incentive to move their gas to areas extrinsic to California that are not burdened by such costs. Among other things, such costs would make it less likely that pipeline capacity will be built to move new Rockies supplies to California, exacerbating the state's looming supply tightness.

Beyond 2020 – CO^2 pipeline and carbon sequestration. El Paso is also focused, however, on using the Nation's natural gas assets in conjunction with its vast coal reserves to sustain economic growth, support environmental objectives, and reduce our dependence on foreign energy. El Paso believes we must employ available technology to transform coal into a synthetic gas that is clean-burning and pipeline quality – ready to be transported through a well-established, reliable, interstate natural gas pipeline transmission network to local natural gas distribution companies and other end-use customers, including millions of homes, commercial and industrial firms, as well as to natural gas-fired power generation plants. Using this technology will:

[9] *See also*, e.g., "Coal's Doubters Block New Wave of Power Plants," Wall Street Journal article of July 25, 2007 [Quoting FERC Commissioner Marc Spitzer as stating that "{g}as is the bridge fuel" that will be needed if planned coal-fired generation plants are not built.]

- Take advantage of billions of dollars of investment in existing natural gas-fired generation plants and pipeline infrastructure;
- Reduce GHG emissions and criteria pollutants; and
- Prudently use our abundant resources of natural gas and coal.

These steps will strengthen America's ability to balance energy demands and the environment in a cost-effective and prudent manner. California can take this same approach: sustained economic leadership in a global economy and continuing the state's legacy as a national – indeed, international – leader in protecting the environment.

II. Coverage and Program Design

a. Coverage Options

With respect to the natural gas sector, certain of Staff Recommendations are inconsistent with the recommendations of the MAC in its final report. These are summarized in the table below and discussed in greater detail below:

Policy Description	MAC Final Report[10]	Staff's Recommendations
Scope of coverage	Fugitive emissions should not be included in the cap-and-trade program	Fugitive emissions should be included
Design	Downstream at industrial customers and Electric Generating Units (first sellers) and eventually at "midstream" for natural gas distribution to small industrial, commercial, and residential users as soon as CARB determines that emissions in those sectors can be monitored, and that the administrative costs of extending coverage to these sectors are not prohibitive.	Recommends that natural gas-related emissions be treated in a "manner similar" to treatment of electricity-related emissions. Establishes point of regulation at distribution utility level for residential and commercial sectors. In addition assigns point of regulation to "infrastructure providers" such as interstate transmission providers. Therefore, regulatory considerations for the natural gas distribution and infrastructure providers are on the same timeline as electricity-related emissions.
Monitoring/Reporting	Recognizes complexities associated with calculating, monitoring and verification of emissions or its proxies.	Indicates that the protocol to be developed by the CCAR will enable comprehensive, cap-and-trade "grade" emissions report. Therefore, coverage can be extended to distribution utilities, infrastructure providers for direct combustion and fugitive emissions
Accounting Mechanisms	Recognizes that separate "accounting" mechanisms are necessary to avoid double counting of	Fails to recognize the need for separate accounting mechanisms.

[10] "Recommendations for Designing a Greenhouse Gas Cap-and-Trade System for California; Recommendations of the Market Advisory Committee to the California Air Resources Board" dated June 30, 2007 (MAC Final Report)

Policy Description	MAC Final Report[10]	Staff's Recommendations
	emissions from electric generation and industrial customers.	
Offsets	Explores the development of offset protocols for fugitive emissions. Recognizes the importance and potential of offsets from fugitive emission from natural gas systems.	Report is silent on offsets as a mechanism to reduce emissions from the natural gas sector

The MAC outlined several coverage options to address cap-and-trade design regimes for the various fossil fuels within the California economy. A schematic developed by the MAC (Figure 4-1) is reproduced below.

In its final recommendations, the "sense" of the MAC (representing majority opinion) is to prefer a cap-and-trade program design in which: (i) the program initially covers first sellers of electricity and large industrial emitters; and (ii) "the transportation and buildings sectors are added in subsequent phases as soon as CARB determines that emissions in those sectors can be monitored, and that the administrative costs of extending coverage to those sectors are not prohibitive."[11] In other words, referring to the MAC's Table 4-1 reproduced below, designing a cap-and-trade program that regulates sources e1 and e2 first and then move to c2 and eventually to c3. We believe that the MAC's majority opinion was based on careful review of the relevant facts – including regulatory and administrative considerations. We support it.

With respect to natural gas, the MAC had the following additional considerations that we believe led to the majority opinion:

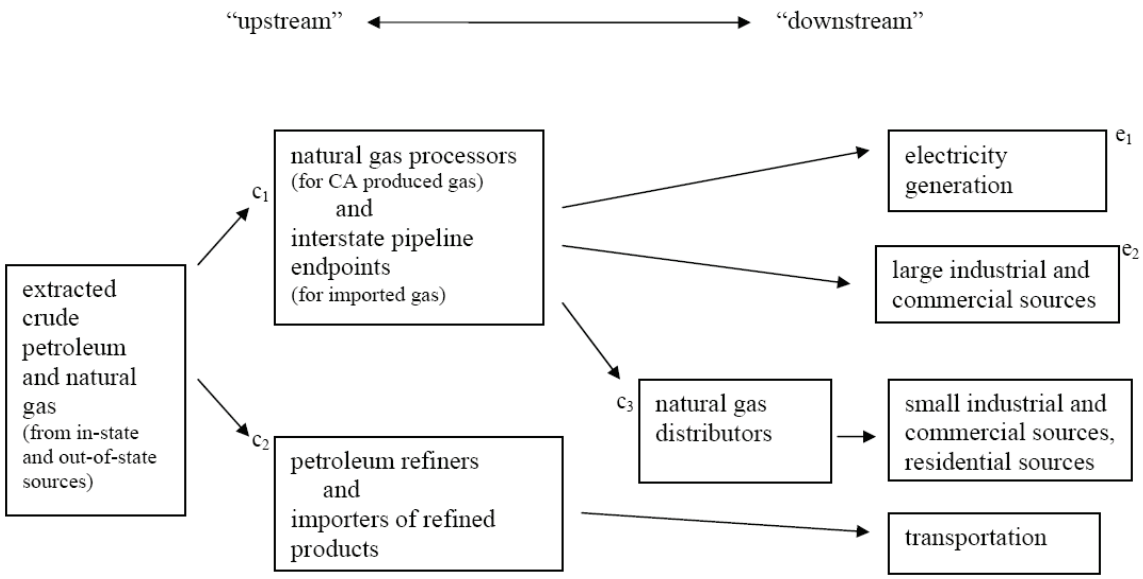
1. With respect to coverage of all GHGs, the MAC identifies two methodologies for defining allowances: (i) based on direct actual emissions; and (ii) based on "proxy" methods. The MAC concludes that "Administrative arrangements to enable such a proxy method will need to be designed to ensure that they are administratively simple while also sufficiently robust… reliable proxies do not exist for all sources of GHG emissions."[12]

[11] MAC Final Report at 39.

[12] MAC Final Report at 24.

2. With respect to fossil fuels, in deciding not to include non CO_2 emissions in the cap-and-trade program, the MAC concluded not to include combustion emissions of CH4 and N_2O due to the "highly variable nature of these emissions and the high cost of accurate monitoring." The MAC also clearly advises against including fugitive emission sources under the cap-and-trade program because of monitoring difficulties.

Figure 4-1
Uses of Fossil Carbon and Fossil Carbon-Based Products In the California Economy



We provided comments[13] to the draft MAC report. Those comments can be summarized as follows:

1. With respect to program coverage, we highlighted additional concerns related to expanding the scope as outlined in Option B in the draft report (*viz.*, upstream coverage of CO^2 from fossil fuel combustion). El Paso supports the MAC's recommendations on the program scope and supports excluding fugitive emissions under the overall cap-and-trade program. El Paso also recommends not including vented emissions of methane in the cap-and-trade program for the same reasons that fugitive emissions should not be included.

[13] http://www.climatechange.ca.gov/events/2007-06-12_mac_meeting/public_comments/MAC%20Cap%20and%20trade%20El%20Paso%20Comments_061507__FINAL_Ecopy_.pdf.

2. El Paso supports the MAC's intent to promote early action reductions; however, we recommend the credit be provided in terms of "allowances" or offset credits.
3. El Paso supports the MAC's concept of inclusion of offset provisions into the cap-and-trade program; however; we recommend inclusion of both project-based (e.g., case-by-case) and performance-based offset development methodologies.

b. <u>Legal/Regulatory/Commercial Design Considerations for Interstate Natural Gas Transmission & Storage Infrastructure Providers</u>

El Paso is supportive of development of GHG regulations and inclusion of the natural gas sector. However, there are significant concerns that need to be recognized and addressed when designing a cap-and-trade system that assigns the point of regulation responsibilities to the interstate natural gas transmission providers. These include:

- Whether a state could lawfully, under the United States Constitution, impose the responsibility for administration of a GHG program, including collection of charges from upstream parties.
- Limitations on the interstate pipelines' ability to pass through compliance and allowance costs without significant revisions to their rate structure and approval of the Federal Energy Regulatory Commission (FERC). And therefore, ineffective transmittal of the carbon price signal through the natural gas economy.

A number of these concerns have been raised several times, including in comments to Senator Jeff Bingaman[14] and Rep. John Dingell[15] by INGAA. In its response to the basic question on the point of regulation and the serious implementation difficulties of imposing this obligation on interstate pipelines, INGAA has raised several key concerns that the CARB, this Commission and the CEC should consider if they were to proceed with designing a cap-and-trade system for the interstate natural gas transmission

[14] March 13, 2006, letter from Lisa Beal, *See* response to Question 2 at http://energy.senate.gov/public/index.cfm?FuseAction=Conferences.Detail&Event_id=4&Month=4&Year=2006.

[15] March 19, 2007, letter from Don Santa to Rep. John Dingell, Chairman, House Energy and Commerce Committee. Response to Question 2c. http://energycommerce.house.gov/Climate_Change/Solicited%20Responses/INGAA.031907.resp.pdf.

sector. FERC has already weighed in on this issue in a February 27, 2007 letter to Senator Bingaman.[16] We strongly urge the consideration of these substantial implementation issues as significant concerns that outweigh the theoretical administrative benefit of regulating a smaller number of entities. Besides the serious regulatory challenges highlighted in the INGAA letters to Congressional leaders, an upstream regulatory design will add tremendous compliance and financial burden for year end allowance reconciliation to the regulated entities. In addition, Option B (the full upstream concept) will have an inconsistent regulatory design with the RGGI Model Rule and the European Union Emissions Trading System (EUETS). There has been very limited experience with an upstream regulatory design and such designs have not found application in major Clean Air Act regulatory programs. In fact, the Acid Rain, NO_x Budget Program and even California's RECLAIM program were all downstream designs.

c. <u>Technical Design Considerations for Interstate Natural Gas Transmission & Storage Infrastructure Providers related to Vented and Fugitive Emissions</u>

El Paso is a leader with respect to measuring and computing emission from natural gas transmission and storage facilities. As indicated above, we are the very first natural gas company to have our GHG emissions certified under CCAR protocols.[17] We are also stakeholders in CCAR's and WRI's efforts to develop emissions estimation protocols for the natural gas transmission and storage facilities. In addition, El Paso companies have been best performers in the EPA Natural Gas STAR program since 1993 and have reported over 55 Bcf of methane reductions per Natural Gas STAR reporting guidelines. Hence, El Paso can provide unique insights to technical capabilities and limitation with respect to designing a cap-and-trade program for natural gas transmission facilities.

Estimation methodologies for GHG emissions from the oil and gas industry, particularly the transmission and storage sector, are considerably more complex due to methane losses from fugitive and vented emission sources. While very limited in volume, the current emission factors have a high degree of

[16] February 27, 2007, letter from Joseph Kelliher, Chairman, FERC to Sen. Jeff Bingaman, Chairman, Senate Energy and Natural Resources Committee.

[17] El Paso's total GHG emissions from California operations were about 12,000 tonnes of CO2e. Our 2006 entity-level emissions report for our California operations is now available at http://www.climateregistry.org/CARROT/public/reports.aspx.

uncertainty.[18] The CCAR is currently developing its natural gas transmission and distribution protocol employing best available emissions estimation methodologies. Vented emissions are proposed to be reported as "process emissions," but this Commission, the CARB and CEC should be aware of the uncertainties surrounding emissions from this category as outlined in the table below. Therefore, policies to consider such emissions as "allowance" grade for use in a cap-and-trade program should be viewed with caution and perhaps skepticism.

Industry organizations such as American Petroleum Institute, American Gas Association and INGAA, and the EPA have commissioned a study to review emission factors specifically within the oil and gas sector. With respect to the transmission and storage sector, the uncertainty can be as high as 260% for compressor stations and pipeline venting activities. Table 1 below, based on 1992 activity data for the U.S. inventory as identified in the 1996 Gas Research Institute/EPA study, summarizes the published emission factors and uncertainties surrounding the emissions. These presented uncertainties do not account for uncertainty associated with the "activity data." The current emission factor improvement study has reviewed approximately 1,700 emission factors, associated uncertainty and the calculation of emissions. Therefore, while the oil and gas industry can report all GHG emissions, this Commission, the CEC and CARB should realize that these estimates have a high degree of uncertainty and therefore we recommend vented emissions, like fugitive emissions, from natural gas transmission and distribution facilities not be part of the cap-and-trade program.

Table 1

Transmission & Storage Sector Equipment and Facility Emission Sources with Largest Contributions to Natural Gas Industry GHG Emissions Estimate Uncertainty

Equipment/ Emissions Source	Source Type	Emission Factor	EF Units	EF Uncert (90% CI)	1992 Emissions Data (scf)	1992 Emissions Uncert (scf)
Compressor Station Venting	Vented	5,300,000	scf/station-yr	262%	1.15E+10	3.02E+10
Pipeline Venting/ Blowdowns	Vented	41,000	scf/mile-yr	236%	1.17E+10	2.75E+10

[18] http://www.ipieca.org/activities/climate_change/downloads/workshops/jan_07/5%20George.pdf.

Equipment/ Emissions Source	Source Type	Emission Factor	EF Units	EF Uncert (90% CI)	1992 Emissions Data (scf)	1992 Emissions Uncert (scf)
Transmission Reciprocating Compressors	Fugitive	5,550,000	scf/comp-yr	65%	3.77E+10	2.45E+10
Pneumatic Devices	Vented	162,197	scf/equip-yr	44%	1.41E+10	6.22E+9
Transmission Compressor Station non-compression Equipment	Fugitive	3,200,000	scf/station-yr	102%	5.45E+9	5.56E+9
Storage Reciprocating Compressors	Fugitive	7,710,000	scf/comp-yr	48%	1.09E+10	5.16E+9
Storage Compressor Station non-compression Equipment	Fugitive	7,850,000	scf/station-yr	100%	3.73E+9	3.73E+9
Meter and Regulator Station Transmission Company Interconnects	Fugitive	1,450,000	scf/station-yr	80%	3.68E+9	2.953E+9
Transmission Centrifugal Compressors	Fugitive	11,100,000	scf/comp-yr	34%	7.53E+9	2.56E+9
M&R Station: Farm Taps & Direct Sales	Fugitive	11,400	scf/station-yr	80%	8.27E+8	6.62E+8

El Paso has developed its technical manual to estimate GHG emissions from the transmission and distribution sector based on past experiences with the INGAA, CCAR and DOE programs. While this is a proprietary document, El Paso welcomes the opportunity to discuss the content of this document with the Commission and highlight additional differences and similarities in the various existing GHG protocols and voluntary programs.

III. Other Considerations

El Paso has highlighted two issues here with respect to early action credits and offsets that should be considered and weighed in any cap-and-trade program for the natural gas sector. These issues reflect our comments to the MAC on the same topics.

a. Early Action Credits

Early Action Credits are typically considered as allowance allocations for entities that achieve early emission reductions (*e.g.*, before the start of the regulatory program or emissions limits). Early

Action Credits are a feature of a number of U.S. programs such as the RGGI Model Rule,[19] Acid Rain program, NO_x SIP Call and Clean Air Interstate Rule. They constitute an effective means to promote and reward early action. Depending on program design, Early Action credits may be necessary to avoid penalizing early actors for their positive, pro-environmental efforts. In a cap-and-trade program, the credits are a tradable commodity that can have significant value as a reward to those who take early initiative.

The MAC has identified the benefits of early action by companies and supports early actions.[20] Nonetheless, the MAC has stated that early actions should not be rewarded by offset credits or allowances. Instead, that committee prefers "direct financial incentives" to avoid "additionality" issues concerning issuances of offset credits. The MAC's concerns on additionality are understandable. However, with respect to natural gas transmission, as pointed out by Commission Staff, much of the early actions have already taken place with respect to fugitive and vented methane emissions through the EPA's Natural Gas STAR program. Established in 1993, the Natural Gas STAR program is a voluntary partnership between the EPA and the oil and natural gas industry designed to cost-effectively reduce methane emissions from oil and natural gas operations. El Paso has been a member of the STAR program since 1993. As the primary component of natural gas, methane is also a valuable clean energy source, and reducing emissions to the atmosphere also adds to domestic natural gas supply. El Paso has been deploying technologies and practices to reduce methane emissions and improve operational efficiency since 1993, and we have powerful incentives to continue to do so based on the dynamics of pipeline-on-pipeline competition. As indicated in the foregoing section, based on EPA's Natural Gas Guidelines for estimation of reductions, as of 2005, El Paso pipeline companies have reported over 55 Bcf[21] of natural gas reductions, which equate to approximately 20 million tonnes of $CO_{2e.}$ El Paso has been recognized by the EPA many times for superior performance in this voluntary program. In fact, as of 2005, El Paso was

[19] Subpart XX5.3(c), Early reduction CO^2 allowances.

[20] MAC Final Report at 60-61.

[21] Bcf = billion cubic feet. Source for methane reductions: EPA Natural Gas Star, 2005 Reporting Summary & Benchmarking Report. Also, includes ANR Pipeline Company which was owned and operated by El Paso as of December 31, 2005.

the best performing company in the Transmission and Distribution sector accounting for about 34% of the total natural gas reductions realized since program inception. Besides EPA's STAR program, El Paso companies have various internal programs focused on efficiency improvement and also advanced natural gas leak detection and monitoring. These programs include improving operational efficiency and identification and reduction of fugitive emissions at our pipeline facilities.

We urge this Commission, the CEC and CARB to recognize and include early reduction credits from activities at natural gas facilities that meet the accepted attributes of the offset credits. We believe such credits from the natural gas sector will immensely aid the cap-and-trade programs by providing low cost emission credits to the market. CARB should develop a flexible mechanism whereby both performance-based standards and case-by-case early action evaluation can be performed and such early actors are rewarded with emission allowances as opposed to "automatic rewards" through adjustments on the emissions cap or other incentives.

Further, not providing early action credits as allowances will create inconsistencies with other regulatory programs like the RGGI, the Clean Development Mechanism (Kyoto Protocol), EUETS, etc.

b. <u>Emission Offsets</u>

The MAC has recommended inclusion of emission offsets without any geographic or quantitative limitations to ensure that GHG emissions are reduced in the most cost-effective manner. MAC also recommends a performance-based standards approach rather than a case-by-case review and cites the RGGI[22] program as an example where performance-based standards are employed. The main advantage cited by the MAC is the reduction of transactional (administrative) costs and improved certainty for both project investment and environmental performance. While the stated advantages of a performance-based standards approach are true, the Commission and the CEC should be flexible in recommending both performance-based standards and case-by-case review to the CARB. The fundamental flaw in the assumption that performance-based standards are always superior is that not all sectors have performance-based standards developed. This includes the natural gas sector, where El Paso believes, as outlined

[22] MAC Final Report at 106-7.

below, that very high quality offsets can be developed that are superior to "performance-based" offsets that are automatically rewarded for certain sectors. Second, it is incorrect to assume that all five approved offset categories in the RGGI program have performance-based standards built into the offset determination. In fact, El Paso has commented in favor of developing performance-based offsets from the natural gas sector into the RGGI program.[23] The draft RGGI model rule released by the Interstate RGGI Staff Working Group published for public comment on March 23, 2006, had included offsets from natural gas transmission sector. El Paso has led an industry and multi-stakeholder effort (including CCAR, RGGI and EPA) to develop performance-based standards for the natural gas transmission and distribution sector from experiences documented in the EPA's Natural Gas STAR program. While this initiative has commenced, the task is extremely time-consuming for to a variety of reasons, including administrative and confidentiality issues.

El Paso respectfully brings to the CARB, CEC and this Commission's attention the baseline methodology AM0023 developed and approved by the CDM's Executive Board on July 8, 2005. This methodology focuses on "Leak reduction from natural gas pipeline compressor or gate stations." El Paso has developed and advocated a 'policy neutral" protocol document[24] for case-by-case offset consideration from natural gas transmission and storage facilities as a valid offset category. The El Paso case-by-case offset proposal calls for the use of advanced techniques to identify and measure emissions at compressor stations. Essentially, the emissions leaks are re-screened and repaired during each monitoring period to ensure repairs are maintained. All information is available for verification. As identified in the mathematical equation in the proposal, the difference in pre- and post-project emission rates are summed from all sources to determine total emission reductions. We believe our proposal has the following attributes:

- The methodology is very straightforward and based on actual measurements;
- It is conservative because it assumes that the "emission rate" will remain constant after baseline, when emission rates usually get worse;
- It requires re-screening every year, which is labor-intensive; and

[23] http://rggi.org/docs/rggi_el_paso_comments_may_19.pdf.

[24] Attachment "2".

- It ensures that emission reductions are easily determined to be real and verifiable.

El Paso strongly believes that, in relation to most other offset categories (including the five adopted by RGGI), our proposal is superior and the CARB can be assured that offsets are real and verifiable. Superior measurement, monitoring and verification technologies are being proposed based on established expertise through our participation in EPA's Natural Gas Star Program. Additionally, an err-on-the-side-of-caution, conservative bias in measuring reductions is being adopted to account for measurement uncertainty.

We are sympathetic to the MAC's concerns on potential administrative constraints and to adopting a CDM-like, project-by-project evaluation of additionality. While we understand the need to simplify the offset rules by using a performance-based standard approach, we believe this process is extremely time-consuming. It could, therefore, artificially limit the number of high-quality offset projects, resulting in an arbitrary constraint on choices and access for facilities affected by the cap-and-trade regulations. We acknowledge that CARB (or regional regulatory offices) may have staffing constraints (including potential technical limitations) to do full-fledged "audits" of projects. However, clear project definition and project documentation, as well as an independent, third-party verification regime covering projects and claimed reductions are all critical features of a robust and reliable program. Such verification process will review and evaluate the assertions by the project sponsor, especially those related to baseline emission levels and additionality. There are highly credible third-party verifiers that – once approved by California – would maintain the integrity of the program.

In our review of the offset section in the RGGI model rule, Subpart XX-10, we believe that RGGI's approved offset protocol for landfill gas projects[25] provides a precedent for looking beyond the performance-based standard approach. As long as particular landfills are not subject to New Source Performance Standards, these facilities are eligible to generate offsets, no matter how profitable such a project may be or the technology employed and its "market penetration." The baseline emissions are consistent with the El Paso proposal discussed above on determining baseline emissions. That approach

[25] Subpart XX10.5(a)

essentially equates the emission rate prior to the installation of the emission control device and the reductions are essentially based on a 98% "assumed" destruction efficiency of methane control device. While this methodology employs an "assumed" destruction efficiency, the methodologies put forth under the El Paso proposal call for advanced monitoring of the post-project leak rate followed by independent third party verification through approved verifiers.

Regarding El Paso's revisions to the AM0023 methodology, as long as a protocol has a very strict but transparent definition of what is, and what is not, business-as-usual, it would be possible for project sponsors to delineate clearly what types of offset activities would be eligible.

With respect to fugitive and vented emissions release, most natural gas companies employ standard operating practices to ensure that the natural gas delivered into their systems is delivered to the customer in the most efficient manner consistent with tariff and applicable regulations. We strongly believe that the El Paso proposal employing the modified AM0023 methodology and offsets in the natural gas sector can meet the additionality concerns without a performance-based standard and without burying the regulators in unverifiable documentation. We also believe that this approach will significantly increase the universe of potential high-quality offset projects, continuing to put California on the cutting edge of cost-effective ways to address GHG issues.

It should be noted that a case-by-case offset approach is quite similar to a case-by-case Best Available Control Technology evaluation under the Clean Air Act. In due course, as developers register their case-by-case offsets into a registry or database (similar to the RBLC[26] database) that will form the basis of eventual development of performance-based standards for this industry.

In sum, we strongly urge the Commission to recommend that the CARB incorporate the flexibility to consider both a case-by-case and performance-based standards approach in determining GHG offsets. Such flexibility will enable the natural gas transmission and distribution sector to contribute immediately to high quality GHG offsets. And, as more of these projects are registered into a registry or database, performance-based standards can be developed by CARB or another agency.

[26] RCLC – RACT/ BACT/ LAER Clearinghouse

ATTACHMENT "2"

EL PASO'S PROPOSAL ON CASE-BY-CASE OFFSET DETERMINATION FROM NATURAL GAS TRANSMISSION AND STORAGE FACILITIES

CO_2 EQUIVALENT (CO_{2e}) EMISSIONS OFFSET PROJECT STANDARDS

Emissions Reductions from Natural Gas Pipelines or Storage facilities. Offset projects that mitigate or reduce emissions at facilities of gas pipelines and thus avoid emissions of CO_{2e} to the atmosphere may qualify for the award of CO_{2e} emissions offset allowances under this Subpart, provided they meet the requirements of this subdivision.

(1) Eligibility. Eligible offset projects shall occur in natural gas pipeline and storage facilities. Eligible offsets shall include activities to detect emission releases using techniques and technologies outlined below or approved by the Administrator, as well as actions to measure emission rates, mitigate identified emissions and undertake re-screening of emissions to ensure mitigation efforts have been maintained at or below the approved Protocol filed by the project sponsor, owner or operator. Eligible offsets will include those that can be described by the project owner in its Protocol as beyond the typical or required emissions management practices that have already been taking place before the offset project started.

Equipment where emissions detection, mitigation and/or reduction shall occur can include, but is not limited to, the following: unit valves on blown down compressors, blow down valves on pressurized compressors, rod packings on pressurized compressors, pressure relief valves, power gas vents for compressor unloaders, engine crankcase vents, pipeline blowdowns, replacement of pipeline or equipment components.

Protocol: The offset project sponsor, owner or operator shall submit a Protocol to the Administrator for approval of the details outlined in Sections (3)-(5) to ensure that the offset project meets the eligibility requirements of paragraph (1) of this subdivision. The project sponsor shall submit a monitoring and verification plan as part of the Protocol application that includes a quality assurance and quality control program associated with equipment used to identify and measure emissions releases from components in natural gas pipeline and storage facilities. The monitoring and verification plan shall also include provisions for ensuring that measuring and monitoring equipment is maintained, operated, and calibrated based on manufacturer recommendations, as well as provisions for the retention of maintenance records for audit purposes.

The monitoring and verification plan shall be certified by an independent verifier accredited pursuant to subpart 242.10.6-7.

(2) Offset project description: A project narrative shall include the following information:.

- (i) Description of the gas transmission or storage company suitable in detail to specify the service territory served by the entity.
- (ii) Owner and operator of the gas transmission or storage entity.
- (iii) Location of the gas pipeline or storage facilities which will undergo the emissions reduction management.
- (iv) Description of the technologies used to detect the emissions and measure the emission rates, as well as the types of measures that will likely be used to eliminate the emissions.

(3) Emissions baseline determination. The emissions baseline shall represent the actual direct emissions of CH4 (in tons of CO_{2e}) from the components identified in the project protocol, as represented by the sum of released CH4 measured using the techniques and formulas described and calculated in accordance with this paragraph. For each emissions release, the project owner will: note the date of emissions release detection; note the date of

emission release mitigation; note the exact location of the emissions release; measure the emissions release flow rate (volume per time), as described further below; note the measurement method.

(i) Emissions Identification. Project participants may use the following advanced tools to detect the emissions at the natural gas transmission facilities:

a) **Electronic Screening** using small hand-held gas detectors or "sniffing" devices to detect accessible emissions. Electronic gas detectors are equipped with catalytic oxidation and thermal conductivity sensors designed to detect the presence of specific gases. Electronic gas detectors can be used on larger openings that cannot be screened by soaping.

b) **Organic Vapor Analyzers (OVAs)** and **Toxic Vapor Analyzers (TVAs)** are portable hydrocarbon detectors that can also be used to identify emissions. An OVA is a flame ionization detector (FID), which measures the concentration of organic vapors over a range of 9 to 10,000 parts per million (ppm). TVAs and OVAs measure the concentration of methane in the area around an emission source.

c) **Acoustic Emission Detection** using portable acoustic screening devices designed to detect the acoustic signal that results when pressurized gas escapes through an orifice. As gas moves from a high-pressure to a low-pressure environment across an emission opening, the turbulent flow produces an acoustic signal, which is detected by a hand-held sensor or probe, and read as intensity increments on a meter. Although acoustic detectors do not measure emission rates, they provide a relative indication of emission size – a high intensity or "loud" signal corresponds to a greater emission rate.

d) **Other technology that provides equivalent or higher detection capabilities.**

(ii) Emissions Measurement. The following technologies can be used to measure emission flow rates:

a) **Bagging techniques** are commonly used to measure flow rates from equipment emission releases. The emitting component, emission opening or emission release source is enclosed in a "bag" or tent. An inert carrier gas such as nitrogen is conveyed through the bag at a known flow rate. Once the carrier gas attains equilibrium, a gas sample is collected from the bag and the methane concentration of the sample is measured. The emission flow rate from the component is calculated from the purge flow rate through the enclosure and the concentration of methane in the outlet stream as follows:

$F_{CH4,i} = F_{purge,i} \times w_{CH4,i}$

where:

$F_{CH4,i}$ = the emission flow rate of methane for emission source i from the emitting component (m^3/h),
$F_{purge,i}$ = the purge flow rate of the clean air or nitrogen at emission source i (m^3/h), and
$w_{CH4,i}$ = the measured concentration of methane in the

exit flow (volume percent).

b) **High volume or hi-flow samplers** capture all emissions from an emitting component or emissions release source to accurately quantify emission flow rates. Emissions, plus a large volume sample of the air around the emitting component, are pulled into the instrument through a vacuum sampling hose. High volume samplers are equipped with dual hydrocarbon detectors that measure the concentration of hydrocarbon gas in the captured sample, as well as the ambient hydrocarbon gas concentration. Sample measurements are corrected for the ambient hydrocarbon concentration, and the emissions rate is calculated by multiplying the flow rate of the measured sample by the difference between the ambient gas concentration and the gas concentration in the measured sample. Methane emissions are obtained by calibrating the hydrocarbon detectors to a range of concentrations of methane-in-air. High volume samplers are equipped with special attachments designed to ensure complete emissions capture and to prevent interference from other nearby emissions sources. The hydrocarbon sensors are used to measure the exit concentration in the air stream of the system. The sampler essentially makes rapid vacuum enclosure measurements. The emission flow rate of methane is calculated as follows:

$F_{CH4,i} = F_{sampler,i} \times (C_{sample,i} - C_{back,i})$

where:

$F_{CH4,i}$ = the emission flow rate of methane for emission source i from the emitting component (m³/h),
$F_{sampler,i}$ = the sample flow rate of the sampler for emission source i (m³/h),
$C_{sample,i}$ = the concentration of methane in the sample flow from emission source i (volume percent), and
$C_{back,i}$ = the concentration of methane in the background near the component (volume percent).

c) **Rotameters** and other flow meters are used to measure extremely large emission releases that would overwhelm other instruments. Flow meters typically channel gas flow from an emissions source through a calibrated tube. The flow lifts a "float bob" within the tube, indicating the emission rate. Rotameters and other flow metering devices can supplement measurements made using bagging or high volume samplers. The emission flow rate of methane is calculated as follows:

$$F_{CH4,i} = 3600 \times w_{CH4,gas} \times k \times A \times \sqrt{g \times h}$$

where:

$F_{CH4,i}$	=	the emission flow rate of methane for emission source i from the emitting component (m³/h).
w_{CH4}	=	the concentration of methane in the natural gas (volume percent).
K	=	a constant of the measurement equipment.

A	=	the annular area between the float and the tube wall (m^2)
G	=	the acceleration of gravity (9.81 m/s^2)
H	=	the pressure drop across the float (as height in m).

d. **Other technology that provides equivalent or higher measurement capabilities.**

(4) Calculation of emission reductions: Emission reductions are calculated as follows:

$ER_v = ConvFactor * \sum [(F_{CH4,i,x} - F_{CH4,i,y}) * T_{i,y} * (1-UR_i)] * GWP_{CH4}$

where:

ER_y	=	the methane emission reductions of the project activity during the period y (tCO_2 equivalents)
ConvFactor	=	the factor to convert m^3 CH_4 into t CH_4. At standard temperature and pressure (0 degree Celsius and 1,013 bar) this factor amounts to 0.0007168 t CH_4/m^3 CH_4.
i	=	all emissions eligible towards accounting of emissions reductions, taking into account the guidance described above.
$F_{CH4,I,x}$	=	the emission flow rate of methane for emission source i from the emitting component (m^3CH_4/h) in the baseline year x.
$F_{CH4,I,y}$	=	the emission flow rate of methane for emission source i from the emitting component (m^3CH_4/h) in the project year y. Note: if emissions are completely mitigated, this variable will be zero. If the emission source partially re-opens, there may be some emission reduction, but if any emitting is still occurring, it must be accounted for.
UR_i	=	the uncertainty range for the measurement method applied to emission source i, determined, where possible, at a 95% confidence interval, consulting the guidance provided in chapter 6 of the 2000 IPCC Good Practice Guidance. If emission measurement equipment manufacturers report an uncertainty range without specifying a confidence interval, a confidence interval of 95% may be assumed.
$T_{i,y}$	=	the time (in hours) the relevant component for emission source i has been operating during the monitoring period y, taking into account the guidance described above (e.g. regarding deductions for broken emission sources).
GWP_{CH4}	=	the global warming potential for methane (tCO_2e/tCH_4).

In calculating emission reductions, the basic underlying assumption is that an emission source, which has been detected and mitigated due to the project activity, would have continued to emit with the flow rate measured prior to the mitigation project, until the equipment concerned would have been replaced. If an emissions mitigation ceases to function, it is conservatively assumed that that the emission resumed at the same flow rate the day after the last inspection, or in case of the first inspection, the day after the mitigation has taken place. Thus, emissions sources where the mitigation efforts failed are excluded from emission reductions from the day after the last inspection. Emission reductions from a specific emission source shall be included in the calculations until the equipment concerned is replaced for a non-emission related reason (i.e. it breaks down).

(5) Monitoring requirements. As part of monitoring, project participants should regularly monitor each emission included in the database. During these inspections, the same tools as described above should be used to detect any emitting from the mitigated emission sources. The

following information should be collected:

a) Date of monitoring;
b) an assessment whether the relevant equipment has been replaced after the mitigation of the emission source;
c) the number of hours the relevant equipment was operating (not turned off) since the last monitoring inspection;
d) an assessment whether the mitigation of the emission source functions appropriately.

If the mitigation of the emission source does not function appropriately, i.e. an emission source at the same location is detected, project participants should note the date of emission source mitigation. All information should be added to a database and be included in monitoring reports.

PROOF OF SERVICE

On July 26, 2007, I caused to be served a true copy of:

PREHEARING CONFERENCE STATEMENT OF EL PASO NATURAL GAS COMPANY AND MOJAVE PIPELINE COMPANY ON ISSUES RELATING TO GHG EMISSIONS IN THE NATURAL GAS SECTOR

to be served by electronic service to all parties identified on the Service List for Docket #R.06-04-009 (Exhibit A attached).

Any party without an e-mail address was served by U.S. Mail (Exhibit B attached).

I certify and declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed in Colorado Springs, Colorado on July 26, 2007.

/s/Stephen G. Koerner

Exhibit A to Proof of Service for "Prehearing Conference Statement of El Paso Natural Gas Company and Mojave Pipeline Company on Issues Relating to GHG Emissions in the Natural Gas Sector", Docket R.06-04-009

steven.schleimer@barclayscapital.com; steven.huhman@morganstanley.com; rick_noger@praxair.com; keith.mccrea@sablaw.com; ajkatz@mwe.com; ckrupka@mwe.com; lisa.decker@constellation.com; kevin.boudreaux@calpine.com; trdill@westernhubs.com; ej_wright@oxy.com; pseby@mckennalong.com; todil@mckennalong.com; jenine.schenk@apses.com; jbw@slwplc.com; kelly.barr@srpnet.com; smichel@westernresources.org; roger.montgomery@swgas.com; ron.deaton@ladwp.com; snewsom@semprautilities.com; dhuard@manatt.com; curtis.kebler@gs.com; dehling@klng.com; gregory.koiser@constellation.com; npedersen@hanmor.com; mmazur@3phases.com; tiffany.rau@bp.com; klatt@energyattorney.com; maureen@lennonassociates.com; rhelgeson@scppa.org; douglass@energyattorney.com; pssed@adelphia.net; akbar.jazayeri@sce.com; annette.gilliam@sce.com; cathy.karlstad@sce.com; Laura.Genao@sce.com; rkmoore@gswater.com; dwood8@cox.net; amsmith@sempra.com; atrial@sempra.com; dhecht@sempratrading.com; daking@sempra.com; svongdeuane@semprasolutions.com; troberts@sempra.com; liddell@energyattorney.com; jkloberdanz@semprautilities.com; marcie.milner@shell.com; rwintrop@pilotpowergroup.com; tdarton@pilotpowergroup.com; lschavrien@semprautilities.com; GloriaB@anzaelectric.org; llund@commerceenergy.com; thunt@cecmail.org; jeanne.sole@sfgov.org; john.hughes@sce.com; llorenz@semprautilities.com; marcel@turn.org; nsuetake@turn.org; dil@cpuc.ca.gov; fjs@cpuc.ca.gov; achang@nrdc.org; ek@a-klaw.com; mpa@a-klaw.com; sls@a-klaw.com; bill.chen@constellation.com; bkc7@pge.com; epoole@adplaw.com; agrimaldi@mckennalong.com; bcragg@goodinmacbride.com; jsqueri@gmssr.com; jarmstrong@gmssr.com; kbowen@winston.com; lcottle@winston.com; sbeatty@cwclaw.com; jkarp@winston.com; jeffgray@dwt.com; cjw5@pge.com; ssmyers@att.net; lars@resource-solutions.org; aweller@sel.com; jchamberlin@strategicenergy.com; kerry.hattevik@mirant.com; kowalewskia@calpine.com; wbooth@booth-law.com; hoerner@redefiningprogress.org; janill.richards@doj.ca.gov; cchen@ucsusa.org; gmorris@emf.net; tomb@crossborderenergy.com; bmcc@mccarthylaw.com; sberlin@mccarthylaw.com; anginc@goldrush.com; joyw@mid.org; jjensen@kirkwood.com; mary.lynch@constellation.com; lrdevanna-rf@cleanenergysystems.com; abb@eslawfirm.com; mclaughlin@braunlegal.com; glw@eslawfirm.com; jluckhardt@downeybrand.com; jdh@eslawfirm.com; vwelch@environmentaldefense.org; www@eslawfirm.com; westgas@aol.com; scohn@smud.org; atrowbridge@daycartermurphy.com; dansvec@hdo.net; notice@psrec.coop; deb@a-klaw.com; cynthia.schultz@pacificorp.com; kyle.l.davis@pacificorp.com; ryan.flynn@pacificorp.com; carter@ieta.org; jason.dubchak@niskags.com; bjones@mjbradley.com; kcolburn@symbioticstrategies.com; rapcowart@aol.com; Kathryn.Wig@nrgenergy.com; sasteriadis@apx.com; george.hopley@barcap.com; ez@pointcarbon.com; burtraw@rff.org; vb@pointcarbon.com; kyle_boudreaux@fpl.com;

andrew.bradford@constellation.com; gbarch@knowledgeinenergy.com; ralph.dennis@constellation.com; smindel@knowledgeinenergy.com; brabe@umich.edu; cswoollums@midamerican.com; bpotts@foley.com; james.keating@bp.com; jimross@r-c-s-inc.com; tcarlson@reliant.com; ghinners@reliant.com; julie.martin@bp.com; echiang@elementmarkets.com; nenbar@energy-insights.com; nlenssen@energy-insights.com; bbaker@summitblue.com; kjsimonsen@ems-ca.com; plusk@wecc.biz; Sandra.ely@state.nm.us; bmcquown@reliant.com; dbrooks@nevp.com; anita.hart@swgas.com; randy.sable@swgas.com; bill.schrand@swgas.com; jj.prucnal@swgas.com; meridith.strand@swgas.com; ckmitchell1@sbcglobal.net; chilen@sppc.com; emello@sppc.com; tdillard@sierrapacific.com; dsoyars@sppc.com; fluchetti@ndep.nv.gov; leilani.johnson@ladwp.com; randy.howard@ladwp.com; robert.pettinato@ladwp.com; hyao@semprautilities.com; rprince@semprautilities.com; rkeen@manatt.com; nwhang@manatt.com; derek@climateregistry.org; harveyederpspc.org@hotmail.com; sendo@ci.pasadena.ca.us; slins@ci.glendale.ca.us; THAMILTON5@CHARTER.NET; bjeider@ci.burbank.ca.us; roger.pelote@williams.com; aimee.branes@ecosecurities.com; case.admin@sce.com; tim.hemig@nrgenergy.com; bjl@bry.com; aldyn.hoekstra@paceglobal.com; ygross@sempraglobal.com; jlaun@apogee.net; kmkiener@fox.net; scottanders@sandiego.edu; andrew.mcallister@energycenter.org; jack.burke@energycenter.org; jennifer.porter@energycenter.org; sephra.ninow@energycenter.org; jleslie@luce.com; ofoote@hkcf-law.com; ekgrubaugh@iid.com; pepper@cleanpowermarkets.com; gsmith@adamsbroadwell.com; mdjoseph@adamsbroadwell.com; diane_fellman@fpl.com; hayley@turn.org; freedman@turn.org; mflorio@turn.org; Dan.adler@calcef.org; mhyams@sfwater.org; tburke@sfwater.org; norman.furuta@navy.mil; amber@ethree.com; annabelle.malins@fco.gov.uk; dwang@nrdc.org; ewanless@nrdc.org; filings@a-klaw.com; nes@a-klaw.com; obystrom@cera.com; sdhilton@stoel.com; scarter@nrdc.org; abonds@thelen.com; cbaskette@enernoc.com; colin.petheram@att.com; jwmctarnaghan@duanemorris.com; kfox@wsgr.com; kkhoja@thelenreid.com; cem@newsdata.com; hgolub@nixonpeabody.com; jscancarelli@flk.com; jwiedman@goodinmacbride.com; mmattes@nossaman.com; jen@cnt.org; lisa_weinzimer@platts.com; steven@moss.net; sellis@fypower.org; arno@recurrentenergy.com; ELL5@pge.com; gxl2@pge.com; jxa2@pge.com; JDF1@PGE.COM; sscb@pge.com; svs6@pge.com; S1L7@pge.com; vjw3@pge.com; farrokh.albuyeh@oati.net; greg.blue@sbcglobal.net; dtibbs@aes4u.com; beth@beth411.com; jhahn@covantaenergy.com; andy.vanhorn@vhcenergy.com; info@calseia.org; Joe.paul@dynegy.com; monica.schwebs@bingham.com; phanschen@mofo.com; josephhenri@hotmail.com; pthompson@summitblue.com; dietrichlaw2@earthlink.net; Betty.Seto@kema.com; JerryL@abag.ca.gov; jody_london_consulting@earthlink.net; steve@schiller.com; mrw@mrwassoc.com; rschmidt@bartlewells.com; adamb@greenlining.org; clyde.murley@comcast.net; brenda.lemay@horizonwind.com; carla.peterman@gmail.com; elvine@lbl.gov; rhwiser@lbl.gov; C_Marnay@1b1.gov; philm@scdenergy.com; rita@ritanortonconsulting.com; cpechman@powereconomics.com; kswain@powereconomics.com; emahlon@ecoact.org; richards@mid.org; chrism@mid.org; rogerv@mid.org; fwmonier@tid.org; brbarkovich@earthlink.net;

johnrredding@earthlink.net; clark.bernier@rlw.com; rmccann@umich.edu; cmkehrein@ems-ca.com; e-recipient@caiso.com; grosenblum@caiso.com; rsmutny-jones@caiso.com; saeed.farrokhpay@ferc.gov; david@branchcomb.com; kdusel@navigantconsulting.com; lpark@navigantconsulting.com; davidreynolds@ncpa.com; scott.tomashefsky@ncpa.com; ewolfe@resero.com; Audra.Hartmann@Dynegy.com; curt.barry@iwpnews.com; dave@ppallc.com; pstoner@lgc.org; rachel@ceert.org; wtasat@arb.ca.gov; steven@iepa.com; etiedemann@kmtg.com; lmh@eslawfirm.com; obarto@smud.org; bbeebe@smud.org; bpurewal@water.ca.gov; dmacmll@water.ca.gov; kmills@cfbf.com; karen@klindh.com; ehadley@reupower.com; Denise_Hill@transalta.com; sas@a-klaw.com; egw@a-klaw.com; akelly@climatetrust.org; alan.comnes@nrgenergy.com; kyle.silon@ecosecurities.com; californiadockets@pacificorp.com; Philip.H.Carver@state.or.us; samuel.r.sadler@state.or.us; lisa.c.schwartz@state.or.us; cbreidenich@yahoo.com; jesus.arredondo@nrgenergy.com; karen.mcdonald@powerex.com; loe@cpuc.ca.gov; agc@cpuc.ca.gov; aeg@cpuc.ca.gov; cft@cpuc.ca.gov; tam@cpuc.ca.gov; dsh@cpuc.ca.gov; edm@cpuc.ca.gov; cpe@cpuc.ca.gov; hym@cpuc.ca.gov; jm3@cpuc.ca.gov; jbf@cpuc.ca.gov; jst@cpuc.ca.gov; jtp@cpuc.ca.gov; jol@cpuc.ca.gov; jci@cpuc.ca.gov; jf2@cpuc.ca.gov; krd@cpuc.ca.gov; lrm@cpuc.ca.gov; mjd@cpuc.ca.gov; meg@cpuc.ca.gov; mts@cpuc.ca.gov; ner@cpuc.ca.gov; pw1@cpuc.ca.gov; psp@cpuc.ca.gov; rmm@cpuc.ca.gov; smk@cpuc.ca.gov; sgm@cpuc.ca.gov; svn@cpuc.ca.gov; scr@cpuc.ca.gov; tcx@cpuc.ca.gov; zap@cpuc.ca.gov; ken.alex@doj.ca.gov; ken.alex@doj.ca.gov; jsanders@caiso.com; jgill@caiso.com; ppettingill@caiso.com; mscheibl@arb.ca.gov; gottstein@volcano.net; pburmich@arb.ca.gov; bblevins@energy.state.ca.us; deborah.slon@doj.ca.gov; dks@cpuc.ca.gov; kgriffin@energy.state.ca.us; ldecarlo@energy.state.ca.us; mgarcia@arb.ca.gov; pduvair@energy.state.ca.us; wsm@cpuc.ca.gov; aulmer@water.ca.gov; hurlock@water.ca.gov; hcronin@water.ca.gov

Exhibit B to Proof of Service for "Prehearing Conference Statement of El Paso Natural Gas Company and Mojave Pipeline Company on Issues Relating to GHG Emissions in the Natural Gas Sector", Docket R.06-04-009

Tara Knox
Avista Corpoation
P.O. Box 3727
Spokane, WA 99220

Baldassaro DiCapo
California Independent System Operator
151 Blue Ravine Road
Folsom, CA 95630

Downey Brand
Jane E. Luckhardt
Sacramento Municipal
555 Capitol Mall
10th Floor
Sacramento, CA 95814-4686

Karen Edson
151 Blue Ravine Road
Folsom, CA 95630

Michael Waugh
Air Resources Board
1001 10th Street
Sacramento, CA 95814

Mary McDonald
Director of State Affairs
CALIFORNIA INDEPENDENT SYSTEM OPERATOR
151 Blue Ravine Road
Folsom, CA 95630

Meg Gottstein
California Public Utilities Commission
Division of Administrative Law Judges
Room 2106
505 Van Ness Avenue
San Francisco, CA 94102-3214

Charlotte F. TerkKeurst
California Public Utilities Commission
Division of Administrative Law Judges
Room 2106
505 Van Ness Avenue
San Francisco, CA 94102-3214

Jonathan Lakritz
California Public Utilities Commission
Division of Administrative Law Judges
Room 2106
505 Van Ness Avenue
San Francisco, CA 94102-3214

Michael R. Peevey, Commissioner
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102-3214